REMARKS

New Claims 13-15 have been added. Claims 2, 6, and 10 have been canceled. As such, pending Claims 1, 3-5, 7-9, and 11-15 are currently presented for examination.

Claims 1, 3-5, 7-9, and 11-12 have been amended. These amendments are fully supported by the original claims and the specification as originally filed, for example, at page 5, lines 12 ("mainly uses muscles in such parts as arms and legs"); page 10, lines 20-21 ("a vehicle steering operation performed by the test subject is exemplified as the target work"); page 11, lines 14-15 ("movement of the masseter muscle which is opening and closing jaws of the test subject"); page 16, line 223 ("a display 25 which displays a result of stress judgment"); page 18, lines 6-8 ("time or intensity calculation module"); page 22, lines 15-19 ("recognize speaking ... from voice data acquired by recording a speech"); and elsewhere throughout the specification. As such, no new matter has been added.

Applicant thanks the Examiner for his review of the instant application. After having carefully considered the Office Action dated July 9, 2007, Applicant respectfully traverses the Examiner's claim rejections.

Claim Objections

The Examiner objects to Claims 4, 8, and 12 because of informalities, and suggests inserting "activity" after "target work." Applicant respectfully amends the Claims such that "activity" now appears after the phrase "target work" in Claims 4, 8, and 12.

Rejections Under 35 U.S.C. § 101

The Examiner rejects Claims 5-8 under 35 U.S.C. 101, as the claimed invention is directed to nonstatutory subject matter. In particular, Examiner asserts Claim 5 is directed to nonstatutory descriptive material in the form of a "computer-executable program" which consists merely of process steps.

Claims 5 and 7-8 have been amended to recite a "computer program product." Claim 6 has been canceled. Applicant respectfully submits that the amended claims are conventionally regarded as Beauregard type claims and have been found by the Patent and Trademark Office to satisfy the requirements of 35 U.S.C. § 101. See, *In Re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995) (When vacating an appeal from the Board of Patent Appeals and Interferences, the Federal

Circuit noted that "The Commission now states 'that computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. § 101 and must be examined under 35 U.S.C. §§102 and 103. The Commissioner states that he agrees with Beauregard's position on appeal that the printed matter doctrine is not applicable."). Claims 5 and 7-8 are directed to a computer-readable medium, to be executed on a computer or microprocessor. As such, the claims as a whole are not merely directed to some disembodied mathematical concept, but involve instructions on a computer-readable medium that produce a practical application rendering the computer program product useful.

With these amendments, Applicant respectfully submits that the claims are in a condition for allowance, and requests that the Examiner withdraw the rejections of any claims under 35 U.S.C. § 101.

Rejections Under 35 U.S.C. § 112

The Examiner rejects Claims 1-12 under 35 U.S.C. 112, second paragraph, asserting that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, Examiner cites an example regarding the "opening and closing jaws of the test subject" as unclear language. Additionally, Examiner asserts there are phrases with no punctuation which make it difficult to determine which word is being modified by which phrase.

Applicant respectfully submits that Claims 1, 3-5, 7-9, and 11-12 have been amended to place them in a condition for allowance. For example, "which is opening and closing jaws of the test subject" has been removed and replaced with "wherein the stress judging means excludes from a target period for stress judgment a period of a work activity comprising opening and closing the jaws." Furthermore, applicant has added commas to prepositional phrases as well as re-worded the claim language in order to rectify any perceived grammatical or idiomatic errors.

In view of the foregoing remarks, Applicant respectfully requests that the Examiner withdraw the rejections of any claims under 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 102

The Examiner rejects Claims 1, 5, and 9 under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,195,531 to Bennett (Bennett). In particular, Examiner asserts that Bennett teaches

a stress judging apparatus, program, and method wherein stress is judged using a myoelectric potential signal from a masseter muscle during a target work activity performed though a movement of a muscle independent of a movement of the masseter muscle.

Applicant respectfully submits that amended Claims 1, 5 and 9 are not anticipated by the reference set forth by the Examiner. Claims 1, 5, and 9 have been amended such that the target work activity is "performed by exercise of the muscles in an arm or leg of the test subject, not by exercise of the jaws of the test subject." That is, in certain embodiments of the invention, the target work activity is one done by exercise of muscles in the arms or legs of the test subject. This type of active exercise is distinct from the passive condition described in Bennett, wherein a patient who is undergoing surgery is anesthetized.

Thus, Bennett does not describe the limitation where active exercise of the muscles in an arm or leg of the test subject can be used in a stress judging apparatus, program or method. Because of this, Applicant respectfully submits that Bennett does not teach every element of independent Claims 1, 5, and 9, and that Bennett does not anticipate or render obvious the inventions defined by these claims.

Applicant respectfully requests that the Examiner withdraw the rejections of any claims under 35 U.S.C. § 102.

Rejections Under 35 U.S.C. § 103

Examiner rejects Claims 1, 4, 5, 8, 9 and 12 under 35 U.S.C. 103(a) as being unpatentable over JP 2002230699 Okamoto et al. (Okamoto) in view of Bennett.

Claims 1, 5 and 9

The Examiner asserts that Okamoto teaches a stress judging apparatus and method comprising a myoelectric potential signal input means for receiving a myoelectric potential signal from a first muscle of a test subject during a target work activity performed through a second muscle independent of a movement of the first muscle. Furthermore, the Examiner asserts that Okamoto teaches the use of a stress judging means involving the myoelectric potential signal. The Examiner acknowledges that Okamoto does not teach the use of the masseter muscle. For this the Examiner relies on Bennett as teaching the use of the masseter muscle as the source of the myoelectric potential.

Applicant respectfully submits that amended Claims 1, 5 and 9 are not obvious over the above combination of references set forth by the Examiner. Claims 1, 5, and 9 have been amended to recite "wherein the stress judging means excludes from a target period for stress judgment a period of a work activity comprising opening and closing the jaws." For instance, in certain embodiments of the invention, when attempting to judge stress by obtaining an electromyogram of the masseter of a subject while he is driving a car, if the subject speaks, the stress judgment module judges that the subject is engaging in speech. Accordingly, the stress judgment module attributes the movement of the masseter to speech, and excludes it from the stress judgment computation so that stress is judged precisely.

These aspects of the invention are not in either Bennett or Okamoto. Neither of those references teaches the limitation wherein a period of work activity comprising opening and closing the jaws is excluded from the stress target period by the stress judging means. As such, the combination of Okamoto in view of Bennett does not teach every element of amended Claims 1, 5, and 9, and does not render obvious the inventions defined by those claims.

Claims 4, 8 and 12

Examiner asserts that Okamoto in view of Bennett teaches a device, program and method according to claims 1, 5 and 9 respectively, and Okamoto further teaches that steering a vehicle ("driving") is the target work.

Applicant respectfully submits that amended Claims 1, 5 and 9 are not taught by the above combinations of references cited by Examiner. In particular, as discussed above, neither reference teach the limitation "wherein the stress judging means excludes from a target period for stress judgment a period of a work activity comprising opening and closing the jaws."

Furthermore, Examiner asserts Claims 2-4, 6-8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto in view of Bennett as applied to Claims 1, 5 and 9, respectively above, and further in view of "Wearable and automotive systems for affect recognition from physiology" to Healey (Healey).

Claims 2, 3, 6, 7, 9 and 10

Examiner acknowledges that Okamoto in view of Bennett does not mention excluding from a target period for stress judgment, a period of time during which the test subject performs a

predetermined work activity that uses that masseter muscle independently of the work activity. For this, Examiner relies on Healey. Examiner asserts that Healey teaches the use of measuring stress in driving through the use of a video camera to capture a driver's facial expression, and then marking times on the video when the subject performed pre-selected activities such as talking. Examiner further asserts that it would have been obvious to one having ordinary skill in the art to exclude from the stress judgment, EMG events during action states that were not caused by stress, as taught by Healy.

Applicant respectfully submits that Healy does not teach the exclusion from stress judgment, EMG events during action states that were not caused by stress. Instead, Applicant respectfully submits that Healey teaches away from this limitation present in certain embodiments of the invention. In Healey, the activities such as talking are not described as not affecting values to be recorded. For example, Table 5.4 on page 105 is a sample from the video coders for a portion of the rest period, while Table 5.5 on page 106 is a sample for a portion of the city drive. On both tables, the amount of talking done by the driver, during a given period of time spent in either driving or resting, is measured (column marked "Talk-D"). Thus, rather than teaching the exclusion from stress judgment the measurement of talking, Healy teaches the measurement of the amount of talking done by the driver.

Furthermore, section 5.4.3, page 107, line 11, of Healey states "The video ratings were compared to the ratings given by the driving tasks by experimental design and to the questionnaire ratings for twelve drives for which both the data segmentation marks and the video code data was available." Thus, the description indicates that Tables 5.4 and 5.5 in Healy are not to exclude the period of activities such as talking from the target period of stress judgment. Instead, periods of activities such as talking are listed in the items under which the respective ratings of stresses from different activities are compared.

Accordingly, Healey does not teach "wherein the stress judging means excludes from a target period for stress judgment a period of a work activity comprising opening and closing the jaws" as recited in currently amended independent Claims 1, 5 and 9.

As such, Applicant respectfully submits that the combination of Okamoto in view of Bennett and further in view of Healy does not teach every element of any of independent Claims 1, 5 and 9.

Claims 4, 8, and 12

Examiner asserts that Okamoto in view of Bennett and further in view of Healey teaches a device, program, and method according to Claims 203, 6-7, and 11-12 respectively, and Okamoto further teaches that steering a vehicle ("driving") is the target work.

Applicant respectfully submits that amended Claims 1, 5 and 9 are not taught by the above combinations of references cited by Examiner. In particular, as discussed above, none of the references teach the limitation "wherein the stress judging means excludes from a target period for stress judgment a period of a work activity comprising opening and closing the jaws."

In view of the foregoing remarks, Applicant respectfully requests that the Examiner withdraw the rejections of any claims under 35 U.S.C. § 103.

New Claims 13-15

Applicant has added the new dependent Claims 13-15, being dependent on independent Claims 1, 5 and 9 respectively. Applicant submits that each of these new claims be allowed for the at least the same reasons as the allowance of the independent claims.

CONCLUSION

Applicant believes that all outstanding issues in this case have been resolved and that the present claims are in condition for allowance. Favorable action is respectfully requested. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is invited to contact the undersigned at the telephone number provided below in order to expedite the resolution of such issues.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: Oct. 5, 2007

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